IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of Han *et al.*	Patent Pending
Serial No.: 10/598,662	Examiner: Ms. Denise R. Anderson
Filed: September 7, 2006	Group Art Unit: 1797
For: Fine Filtering Apparatus Controllable Packing Density Using Flexible Fiber	Confirmation No.: 8632
Attorney's Docket No: 5952-064	

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January 31, 2010 Kathleen S. McDermott
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REPLY BRIEF

In addition to the arguments already submitted in the Appeal Brief dated September 28, 2010, Applicant submits the following Reply Brief according to MPEP § 1208 to address specific points in the Examiner's Answer mailed December 3, 2010 (hereinafter, "Answer"). This Reply Brief is timely filed within two months of the mailing date of the Answer. No fees should be required for entry of this Reply Brief; however, if any fees are required for its entry, the Commissioner is hereby authorized to deduct those fees from Deposit Account 18-1167.

(I.) ARGUMENT

A. Raff Does Not Disclose a Density Control Plate Below a Water Inlet

The Examiner finds that it is known in the art to provide density control plates to 1) control the density of the fiber bundle and 2) to "ensure the structural integrity of the seal around the fibers such that the fibers do not break off from the media fixing plate." Answer, p. 40. This finding by the Examiner is erroneous and is factually unsupported. One of ordinary skill in the art would not understand a density control plate to be an element that "ensures the structural integrity of the seal around the fibers such that the fibers do not break off from the media fixing plate." Rather, one of ordinary skill in the art would only find a density control plate to be a plate controls the density of fibers.

Based on the above erroneous finding, the Examiner points to Raff, which has a ring 6b, disposed at the end of the fiber bundle. Ring 6b prevents cracking between the end wall 3b and the housing 2b when the filtration device is cured. Raff, col. 1, lines 43-64. It is improper for the Examiner to equate Raff's ring 6b with a density control plate because it does not have any effect on the density of the fibers. All rejections are based upon this erroneous factual finding and thus should be withdrawn.

B. The Motivation for Modifying Boye in view of Raff Fails to Support a *Prima Facie* Case of Obviousness

One of ordinary skill in the art would not move Boye's density control plate to a location "below the water inlet" based on the teachings in Raff. This finding is in error. The device in Boye does not have the risk of cracks being formed between an end wall and the housing, as shown in the Raff device. In particular, nothing in Boye suggests that its device is cured - the cause of cracking in the Raff device. Further, the Examiner has not provided any evidence that the structure in Boye is cured and prone to cracking. Because Boye does not have a structure having an end wall and housing that are prone to cracking there is no reason to modify Boye as

suggested by the Examiner. Thus, the motivation for modifying Boye fails to support a *prima facie* case of obviousness. All rejections are based on this factually unsupported motivation and thus, should be withdrawn.

C. The Suggested Modification of Boye in view of Raff Renders the Density Control Plate Unsatisfactory for its Intended Purpose

If Boye's density control plate - jaws 7a,7b - were placed between the alleged media fixing plate in Boye (black rectangle near inlets 5) and the housing 1, as suggested by the Examiner, the density control plate would not have any effect on the density of the fibers. This would defeat the purpose of the density control plate. Boye explains that the purpose of the density control plate is to compress the fibers so that particles in the water can be effectively deposited thereon. Boye, p. 12, lines 5-15. Accordingly, the proposed modification would render Boye's density control plate unsatisfactory for its intended purpose. Thus, one of ordinary skill in the art would not modify Boye as suggested by the Examiner. Respectfully, this finding by the Examiner is erroneous.

D. The Suggested Modification of Boye in view of Raff Does Not Include Each of the Claim Limitations

If Boye's density control plate - jaws 7a,7b - were placed between the alleged media fixing plate in Boye (black rectangle near inlets 5) and the housing 1, so that the density control plate is disposed "below" the water inlets, the density control plate would not inhibit water from flowing in a direction toward the air inlet, as required by the claim. Rather, the water entering the fibers would completely bypass the density control plate and enter the fibers through inlet 6. Placing the density control plate in the suggested location of Boye would prevent the density control plate from having any effect on the flow of the water or the density of the fibers. Thus, the suggested modification to Boye would not inhibit water from flowing in a direction toward the air inlet, as claimed. Accordingly, the rejections of all pending claims should be withdrawn.

E. The Suggested Modification of Boye in view of Spekle Does Not Include Each of the Claim Limitations

The Examiner admits that Boye does not disclose a header jacket, having a clarified water outlet and a waste outlet, extending around an end portion of the housing. Answer, p. 51. Instead, the Examiner cites Spekle as having a header jacket extending around an end of the housing and suggests that it would have been obvious to "have constructed the Boye filtering apparatus with the header jacket extending around [an]...end portion of the housing, as taught by Spekle..., since this is an example of simple substitution of one known element...for another...to obtain predictable results. Answer, p. 52.

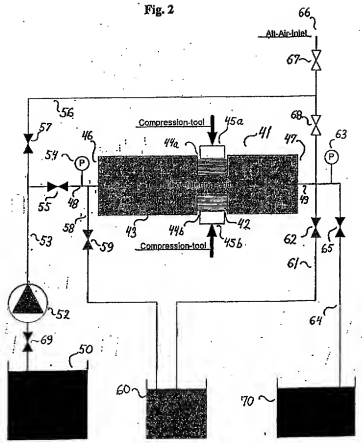
However, the alleged header jacket in Spekle -collar 23 - does not have a clarified fluid outlet and a waste outlet. Rather, Spekle's collar 23 only contains one outlet - outlet 28. The conduit 14, disposed adjacent to the alleged header jacket is not contained within the header jacket, and thus, cannot be deemed to form a part of the alleged header jacket, as required by the claim. Instead, conduit 14 is disposed on the expanded portion 4 of the housing 2. Further, even if the conduit 14 was disposed on the alleged header jacket, conduit 14 is not a waste outlet, as required by the claim. Instead, conduit 14 is an inlet for dialysis liquid.

Thus, if the alleged header jacket of Spekle were incorporated into the Boye device - as a simple substitution of one known element for another - the incorporated header jacket would not include two separate outlets, as required by the claim. The Examiner has not cited any reference with a header jacket extending around a housing having both a clarified water outlet and a waste outlet. Thus, the combination of references does not teach or suggest each of claim limitations.

C. Boye Does Not Describe the Water Inlet and the Air Inlet of Claim 34

The Examiner erroneous alleges that during the forward flushing process described in Boye, the air inlet and the water inlet are disposed on the same end of the Boye device. Answer, p. 54. This finding is not factually supported. In describing the forward flushing mode, Boye states that "the inlet 66 may be used for injecting or conducting liquid, air or gas into the system to be used for a flushing process." Boye, p. 14, lines 20-22. Further, "[i]f a forward flushing using inlet 66 is wanted...liquid, air or gas from inlet 66 [is directed] through the uncompressed fibres of the fibre housing 42." Boye, p. 15, lines 11-15. Boye's Fig. 2 is provided below for reference. During the described forward flushing process some type of fluid - liquid, air, or gas - is directed through inlet 66. Thus, inlet 66 acts as either a liquid inlet, or an air inlet, or a gas inlet. No other inlet on this end of the device functions as an inlet. Boye does not have separate air and water inlets disposed on the same end of the device, as required by the claim. Accordingly, the rejection of claim 34 based on this erroneous finding should be withdrawn.

Fig. 2



In light of the foregoing facts, as well as those presented in Appellant's Appeal Brief, Appellant respectfully requests that the Board overturn all rejections.

Respectfully submitted,
COATS & BENNETT, P.L.L.C.

Dated: January 31, 2011

Kathleen A. Cavanagh
Registration No.: 59,911
Telephone: (919) 854-1844
Facsimile: (919) 854-2084